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ORUM & ROTH
53 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3606

EXAMINER

ARANI, TAGHI T

ART UNIT	PAPER NUMBER
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2131

8

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,608

Applicant(s)

HILL ET AL.

Examiner

Taghi T. Arani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-20 and 53-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-20, 53-64, 69, 71-75, 77 and 78 is/are rejected.
- 7) ☒ Claim(s) 65-68, 70 and 76 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-52 were pending for examination.

Claims 1, 21-52 are cancelled.

Claims 53-78 are newly added.

After further consideration, the Examiner withdraws the previous objection made to claims 13-21, 42 and 52 (now cancelled) and provides the following Non-Final action .

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **13, 2-20, 53-55 and 78** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridgelall, US Pat. Appl. No. 2002/0008143, filed Jul. 2001 and further in view of below..

As per claims 13, 4-6 and 18, Bridgelall is directed to a bar code scanner/RFID circuit that combines the functionality of a bar code scanner and an RFID circuit, see page 1, paragraph 8. Bridgelall's bar code scanner/RFID circuit can be formed to fit accepted sizes for laser scan engine available in the industry, see page 1, paragraphs 8-11. The bar code scanner/RFID circuit includes a processing unit, a bar code scanner circuit, an RFID circuit, a second processing unit and a data acquisition circuit. The data acquisition circuit of Bridgelall includes suitable circuitry for converting the data signal into an acceptable analog signal and then into a digital signal-e.g. a digitizer analog to-digital converter, see page 2, paragraph 20.

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Bridgelall's bar code scanner/RFID circuit includes RFID buffer (i.e. memory storage and a download means recited in claim 18) , see Fig. 1, element 116.

Bridgelall further teaches a single 8-pin interface between a central processing unit and the bar code scan/RFID circuitry, see page 2, paragraph 22. The eight pins are reserved for eight functions including one for power source.

Bridgelall's bar code scanner/RFID circuit is operable as a receiver and transmitter, see page 2, paragraphs 27-30, see also Fig. 1, elements 126 and 136.

Bridgelal fails to disclose an aperture between said lens and said optical sensor/receiver.

However, the Examiner asserts that it is known in the art relating to line-focus systems to utilize an aperture positioned in the light path between a line object and a photosensor to differentially occlude light in the light path extending between the line object and the photosensor. Such "occluding" or "compensating" apertures are designed to occlude a proportionally greater portion of the light at the center of the light path than at the ends so as to make the light intensity at the photosensor uniformly, see for example, Boyd, US pat. 4,959,541, col.1, lines 48-64.

As per claims 2 and 3, Bridgelall's teachings suggest an identification signal (such as electronic serial number) being processed either by the bar code scanner circuit or REID circuit once received by a central processing unit, see page 3, paragraphs 0038 and 0039.

As per claims 7 and 10, Bridgelall's teaching suggests encryption capability of the bar code scanner/RFID circuitry for encrypting and decrypting machine readable data decoded by the processors of the circuit, see paragraph 33 and 39 and that the encryption is configurable by the circuit that scans and reads simultaneously from both types of identifies.

As per Claims 8 and 9, the Examiner asserts cryptography involves the design of algorithms for encryption and decryption, to ensure the secrecy and/or authenticity of messages. Encryption is the conversion of data (called plaintext) into an unintelligible form (called ciphertext) by means of a reversible translation, based on a translation table or algorithm. Decryption is the translation of ciphertext into plaintext. Typically, cryptographic functions require "keys" which are used to encrypt and decrypt the data and are known only by trusted entities (see for example, Trostle, Us. Pat. No. 6,718,467, Col. 1, lines 19-22).

As per claims 11-12, the bar code scanner circuit of Bridgelall's bar code scanner/RFID circuit includes laser propagation device (i.e. an emitter) and laser detection device (i.e. a sensor) to read a tag as a bar code, see page 2, paragraph 25.

As per claim 14, The Examiner asserts that scanner means having depth of field enabling scanning symbologies within a compact disc case through said compact disc case is well known in the art, see Barken et al., US pat. 6,578,767 , col. 2, lines 26-52 and lines 62-65, to be able to scan over curved surface and/or through the thick plastic protective packaging that is used with CDs and other products.

As per claims 15-17, the Examiner asserts that (slit or cross or star) that many different shapes (slit or cross or star) for the aperture are known in the art and they are obvious design choices, see Barken et al., col.6, lines 23-31, to allows greater angular misalignment, , thereby optimizing the operation of the scanning device.

As per claims 19-20 and 53, the bar code scanner circuit of Bridgelall's bar code scanner/RFID circuit includes laser propagation device (i.e. an emitter) and laser detection device (i.e. a sensor) to read RFID tag and bar code, see page 2, paragraph 25. That is, the

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Bridgelall's bar code scanner/RFID circuits and acquisition circuit constitute download means via modulation of emitter and via RFID.

Bridgelall teaches an actuator on a hand-held device with positions available to the user for bar code scan, RFID scan and simultaneous bar cod/RFID setting, see page 2, paragraph 24. When a user instructs the central processing unit of the bar code scanner/RFID circuit to read an identification tag (i.e. a bar code tag, an RF tag or both) , a central processing unit provides a data acquisition command to digital microprocessor. That is download means via electro-mechanical connection.

As per claim 54 and 78, The Examiner asserts that limitations relating to size/weight are not sufficient to patentably distinguish over the prior art (see *In re Rose* , 220 F.2d 459, 105 USPQ 237 (CCPA 1955, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976)).

As per claim 55, Bridgelall teaches an actuator on a hand-held device with positions available to the user for bar code scan, RFID scan and simultaneous bar cod/RFID setting, see page 2, paragraph 24. When a user instructs the central processing unit of the bar code scanner/RFID circuit to read an identification tag (i.e. a bar code tag, an RF tag or both) , a central processing unit provides a data acquisition command to digital microprocessor.

Claims 56-64 , 69, 73-75 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nambudiri et al., US Pat. No. 6,640,214 filed Jan 1999 and further in view of below.

Nambudiri discloses a home cradle which includes a home portable terminal-receiving station (i.e. a data transfer apparatus) and an associated home data interface (i.e. a data transfer

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means) to interface with a two-way data interface of a portable terminal (i.e. a data acquisition device), see col. 6, lines 7-20.

Nambudiri further teaches that the home cradle includes a transfer data circuit (i.e. a connection means) coupled to the home data interface so as to engage in data exchange with an optical interface, and is also configured for data exchange with a host modem (i.e. host computing means), see col. 6, lines 21-27, see also Fig. 1, numeral elements.

Nambudiri teaches that that the data interface can be any type of suitable interface such as optical, electrical plug, radiophone, inductive transfer, and the like, and similarly any type of interface can be employed for the data interface of the portable terminal, see col. 8, lines 1-22.

Nambudiri teaches a system for acquiring information which includes a portable terminal (i.e. a mobile data acquisition apparatus) which includes a two-way data interface such as a laser or CCD bar code reader (i.e. a scanning means for reading a machine readable symbology) which is configured to read bar codes associated with items (i.e. objects). The portable terminal also includes a memory, see col. 6, lines 28-55. Nambudiri's two-way data interface of the portable terminal is configured for data exchange with Kiosk data interface when the portable terminal is received in the kiosk portable terminal-receiving station.

Nambudiri's home cradle and kiosk cradle are integrated into a host computer, see col. 5, line 59 through col. 6, and line 5.

Nambudiri's portable terminal that can function as an electronic-key (see col. 7, lines 36-54) which includes a scanning device for reading bar code, a scanner decoder coupled to the scanning device, a communication interface/memory board coupled to the scanner decoder and a main processing board. Nambudiri's scanning device generates digital bar code pattern and that

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the scanner decoder interprets the Digital Bar Code Pattern (DBP), see col. 15, lines 39 through col. 16, line 37. Nambudiri's terminal can include a suitable power source, see col. 8, line 61-65.

Nambudiri further teaches an initialization procedure carried on the portable terminal by swiping a special bar code to set an appropriate frequency (i.e. re-configuring) for wireless communication. That is, the teaching of Nambudiri suggests outputting a stored key sequence representing an appropriate frequency for the portable terminal used as an electronic key when entering a shopping establishment and that the portable terminal optionally include a wireless transceiver coupled to a memory and configured for wireless communication (such as an RFID) with at least one optional wireless multi-access point, see col. 6, line 5 through col. 7, line 7.

Nambudiri's portable scanner includes the two-way terminal data interface which include a light emitting diode (i.e. an emitter) and a photodetector (i.e. sensor), employed in a manner well-known in other optical communication systems, see col. 9, lines 26-44.

Nambudiri's portable terminal (or smart toy) is suitable for combined used in both a home of a user and at least one shopping establishment, see col. 5, lines 35-40, col. 6, lines 2830.

Nambudiri's portable terminal can function as an "electronic key" which includes "intrinsic identifying indicia" (i.e. access right) to identify the bearer to the host computer as an authorized user, see col. 7, lines 36-54.

Nambudiri further teaches that such indicia can include a unique identification code (i.e. a serial number) which can be " burned in" to a circuitry (e.g. ROM, PROM, EPROM) of the portable terminal and that the user receives authorized possession of the portable terminal.

Nambudiri discloses a home cradle which includes a home portable terminal-receiving station (i.e. a data transfer apparatus) and an associated home data interface (i.e. a data transfer

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means) to interface with a two-way data interface of a portable terminal (i.e. a data acquisition device), see col. 6, lines 7-20.

Nambudiri further teaches that the home cradle includes a transfer data circuit (i.e. a connection means) coupled to the home data interface so as to engage in data exchange with an optical interface, and is also configured for data exchange with a host modem (i.e. a remote information source associated with the bar codes) , see col. 6, lines 21-27.

Nambudiri further teaches downloading the bar codes associated with shopping related items to the host computer (i.e. a remote information source) and storing the data in a shopping list database, see col. 7, lines 17-22, see also col. 10, lines 19-59.

Nambudiri's portable terminal (i.e. a data acquisition device) includes a scanning device for reading bar code, a scanner decoder coupled to the scanning device, a communication interface/memory board coupled to the scanner decoder and a main processing board. Nambudiri's scanning device generates digital bar code pattern and that the scanner decoder interprets the Digital Bar Code Pattern (DBP) and the start of Scan, see col. 15, lines 39 through col. 16, line 37. Nambudiri's terminal can include a suitable power source, see col. 8, line 61-65.

Nambudiri fails to disclose an aperture between said lens and said optical sensor/receiver.

However, the Examiner asserts it is known in the art relating to line-focus systems to utilize an aperture positioned in the light path between a line object and a photosensor to differentially occlude light in the light path extending between the line object and the photosensor. Such "occluding" or "compensating" apertures are designed to occlude a proportionally greater portion of the light at the center of the light path than at the ends so as to

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make the light intensity at the photosensor uniformly, see for example, U.S. pat. 4,959,541, col.1, lines 48-64.

Allowable Subject Matter

Claims 65-68,70 and 76 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from examiner should be directed to Taghi Arani, whose telephone number is (703) 305-4274. The examiner can normally be reached Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (703) 305-9648. The Fax numbers for the organization where this application is assigned is:

(703)872-9306

Taghi Arani

Patent Examiner


AYAZ SHEIKH
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